CLAIMS

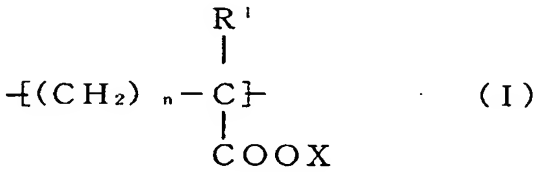
1. A dental adhesive composition comprising an organic polymer, wherein

the organic polymer comprises a unit (A) containing a (substituted) carboxyl group, which is represented by formula (I) below, and a unit (B) containing a (substituted) carbamoyl group, which is represented by formula (II) below;

a sum of the units (A) and (B) accounts for at least 20 mol% of all units that constitute the organic polymer;

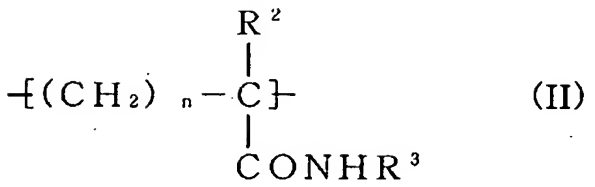
a ratio of the unit (A) / unit (B) in the polymer is within a range from 0.6/1.0 to 1.0/0.6; and

when the quantity of the unit (A) or (B) having a smaller quantity than the other unit within the polymer is deemed 100 mol%, then in at least 70 mol% of the unit (A) or (B), a carbon bonded to the (substituted) carboxyl group in the unit (A), and a carbon bonded to the (substituted) carbamoyl group in the unit (B) are either directly adjacent, or bonded together via a methylene group or ethylene group



(I)

(in formula (I), n represents either 0 or 1, X represents a hydrogen atom, $-NH_4$, or 1/mM (wherein, M is a metal atom selected from the group consisting of alkali metals, alkali earth metals, transition metals, Zn and Cd, and m represents a valency of the metal), and R^1 represents a hydrogen atom or a methyl group)



(II)

(in formula (II), n represents either 0 or 1, R^2 represents a hydrogen atom or a methyl group, and R^3 represents a hydrogen atom, an alkyl group, alkenyl group, aralkyl group or phosphonoxyalkyl group of 1 to 18 carbon atoms).

2. A dental adhesive composition according to claim 1, wherein a sum of the units (A) and (B) accounts for at least 40 mol% of all units that constitute the organic polymer.

3. A dental adhesive composition according to claim 1, wherein the ratio of the unit (A) / unit (B) is within a range from 0.7/1.0 to 1.0/0.7.

4. A dental adhesive composition according to claim 1, wherein when the quantity of the unit (A) or (B) having a smaller quantity than the other unit within the polymer is deemed 100 mol%, then in at least 80 mol% of the unit (A) or (B), a carbon bonded to the (substituted) carboxyl group in the unit (A), and a carbon bonded to the (substituted) carbamoyl group in the unit (B) are either directly adjacent, or bonded together via a methylene group or ethylene group.

5. A dental adhesive composition according to claim 1, wherein R^3 is at least one group selected from the group consisting of alkyl groups, alkenyl groups, and aralkyl groups.

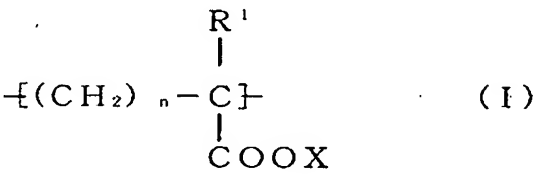
6. A dental filler comprising an organic polymer, a copolymerizable monomer, a filler and a curing agent, wherein

the organic polymer comprises a unit (A) containing a (substituted) carboxyl group, which is represented by formula (I) below, and a unit (B) containing a (substituted) carbamoyl group, which is represented by formula (II) below;

a sum of the units (A) and (B) accounts for at least 20 mol% of all units that form the organic polymer;

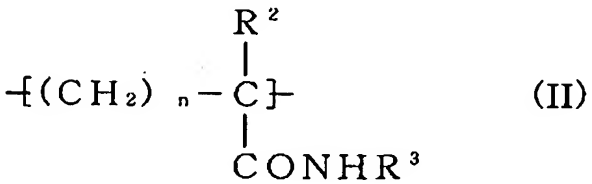
a ratio of the unit (A) / unit (B) in the organic polymer is within a range from 0.6/1.0 to 1.0/0.6; and

when the quantity of the unit (A) or (B) having a smaller quantity than the other unit within the polymer is deemed 100 mol%, then in at least 70 mol% of the unit (A) or (B), a carbon bonded to the (substituted) carboxyl group in the unit (A), and a carbon bonded to the (substituted) carbamoyl group in the unit (B) are either directly adjacent, or bonded together via a methylene group or ethylene group



(I)

(in the formula (I), n represents either 0 or 1, X represents a hydrogen atom, $-NH_4$, or 1/mM (wherein, M is a metal atom selected from the group consisting of alkali metals, alkali earth metals, transition metals, Zn and Cd, and m represents a valency of the metal), and R^1 represents a hydrogen atom or a methyl group)



(II)

(in the formula (II), n represents either 0 or 1, R^2 represents a hydrogen atom or a methyl group, and R^3 represents a hydrogen atom, an alkyl group, alkenyl group, aralkyl group or phosphonoxyalkyl group of 1 to 18 carbon atoms).

7. A dental filler according to claim 6, wherein a sum of the units (A) and (B) accounts for at least 40 mol% of all units that constitute the organic polymer.

8. A dental filler according to claim 6, wherein the ratio of unit (A) / unit (B) is within a range from 0.7/1.0 to 1.0/0.7.

9. A dental filler according to claim 6, wherein when the quantity of the unit (A) or (B) having a smaller quantity than the other unit within the polymer is deemed 100 mol%, then in at least 80 mol% of the unit (A) or (B), a carbon bonded to the (substituted) carboxyl group in the unit (A), and a carbon bonded to the (substituted) carbamoyl group in the unit (B) are either directly adjacent, or bonded together via a methylene group or ethylene group.

10. A dental filler according to claim 6, wherein R^3 is at least one group selected from the group consisting of alkyl groups, alkenyl groups, and aralkyl groups.